

REMARKS/ARGUMENT

The applicants' attorneys appreciate the Examiner's thorough search and remarks.

Claims 1-21 are in the application. Claim 21 has been withdrawn from consideration.

Claims 1 and 12 are independent. Each of the remaining claims is a dependent claim that depends from one of claims 1 and 12 either directly or indirectly.

Claims 1-11 have been rejected under 35 U.S.C. §103(a) over Baba et al., U.S. Patent No. 5,321,289 in view of Calafut, JP 11-284174 (Office Action, par. 4) and separately over Calafut in view of Bulat et al., U.S. Patent No. 5,106,770 (Office Action, par. 5).

Claims 12-20 were rejected as anticipated by Calafut (Office Action, par. 2).

In support of all of the rejections it was set forth that Calafut shows a plurality of (claim 1) or at least one (claim 12) narrow, spaced conductive gate strips 45 disposed atop an insulation gate layer and extending across and contacting each of "said conductive gate bodies" (claim 1) or "each of said first and second spaced conductive polysilicon layers" (claim 12). Specifically, it has been set forth that numeral 45 in Calafut identifies spaced, conductive gate strips and numeral 46 identifies conductive bodies as called for by claims 1 and 12.

Calafut is a Japanese reference. The applicants' attorneys have obtained the U.S. Patent corresponding to Calafut, U.S. Patent No. 6,396,102 ('102 patent). A copy of the '102 patent is enclosed for the Examiner's convenience. Calafut as used hereinafter will refer to the '102 patent rather than the Japanese reference originally cited in the Office Action.

Claim 1 in combination with other limitations, calls for trenches and "conductive gate bodies disposed within the interiors of each of said trenches", and claim 12, in combination with other limitations, calls for first and second trenches and "first and second spaced conductive polysilicon layers filling said at least first and second trenches respectively". The Office Action states that the numeral 46 identifies the conductive bodies as set forth in claims 1 and 12. However, a cursory inspection of Figs. 4c and 4d would lead to the conclusion that numeral 46 cannot identify a features that corresponds to the conductive bodies as set forth in claims 1 and 12 in that the features identified by numeral 46 do not fill trenches as called for by claims 1 and 12.

The applicants' attorneys believe that the Examiner intended to state that numeral 45 identifies a feature that may correspond to the conductive bodies and numeral 46 (46a, 46b, 46c) identifies a feature that may correspond to one or a plurality of narrow, spaced conductive gate strips as set forth in claims 1 and 12. To move the prosecution forward, the applicants' attorneys are submitting the arguments set forth herein on the basis of the latter belief. If the Examiner disagrees, the applicants' attorneys respectfully request more details as to how item 46 can correspond to conductive bodies as set forth in the claims.

It has been set forth that Calafut shows conductive bodies 45 and one or a plurality of narrow, spaced conductive gate strips 46 (46a, 46b, 46c to be exact) extending across and contacting the conductive bodies. It is respectfully submitted that Calafut does not state that regions 46a, 46b, 46c are strips. Indeed, a close reading of Calafut would lead to the conclusion that regions 46a, 46b, 46c are not strips. Specifically, referring to Fig. 4d, regions 46a, 46b, 46c are used during the manufacture of the device as a mask when implanting dopants to form the double diffusion area, which eventually forms the active region of the device. See col. 6, lines 4-17. Regions 46a, 46b, 46c could not be strips in that they could not properly function as a mask for forming the active region in the device. Reconsideration of claims 1 and 12 is, therefore requested.

In addition, when claims 1 and 12 are read as a whole, it becomes clear that narrow conductive strips are connected to the conductive bodies of the gate structures. Calafut does not teach such a structure. The trenches 42 over which region 46b, for example, is formed is not a gate structure, but rather a gate bus. Col. 4, lines 15-17. The gate structures in the device shown by Calafut are disposed on either side of trenches 42. Trenches 42 do not form part of the gate structure in that they are not adjacent to source and body regions, as would be required of any gate structure, and is called for by claims 1 and 12. Reconsideration of claims 1 and 12 for this additional reason is requested.

Claims 2-11 depend from claim 1. Claims 13-20 depend from claim 12. Each of claims 2-11 therefore, includes all of the limitations of claim 1 and additional limitations not shown by the art of record, and each of claims 13-20 includes all of the limitations of claim 12 and

additional limitations not shown by the art of record. Reconsideration of claims 2-11 and 13-20 is requested.

The application is believed to be in condition for allowance. Such action is earnestly solicited.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Asst. Commissioner for Patents, Washington, D.C. 20231, on January 21, 2003:

Respectfully submitted,

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(Signature)

January 21, 2003

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Enclosure